eTrac Inc.
637 Lindaro Street , Suite 100
San Rafael, CA 94901
T 415 462 0421
F 415 480 2023
www.etracinc.com

July нф, 2019

Richard Greenwood

California State Lands Commission

200 Oceangate, 12th floor

Long Beach, CA 90802-4331

Dear Mr. Greenwood,

I am writing in accordance with the California State Lands Commission Geophysical Survey Permit No. 9235, to notify you of proposed survey operations in regards to a multibeam Σ sdzōπōƻűűƻϒ ŀyŘ wh± survey of Pipeline Inspections fƻŎŀűŜŘ ƻŦŦăKƻŊŜ ŦŊƻϒ {ŀyűŀ . ŀŊōŀŊŀΣ / ! űƻ [ƻyƎ . ŜŀŎKΣ CA. This survey will be conducted on August 1, 2019 and September 26, 2019 between hours of 8am and 7pm. Please find the required documentation pertaining to this notification attached. If additional information is required, please don't hesitate to contact our offices.

Sincerely,

Michael Mueller

Appendix A:
Pre-Survey Notification Package

Notifications

At least twenty-one (21) calendar days in advance of any proposed operations, written notice of the proposed operations must be received by the following parties:

i.

Statewide Geophysical Coordinator California State Lands Commission 200 Oceangate, 12th Floor Long Beach, CA 90802-4331 Faxing: (562) 590-5295 Emailing: slc.ogpp@slc.ca.gov	USCG Local Notice to Mariners Commander (dpw) CG Eleventh District Bldg. 50-2, CG Island Alameda, CA 94501-5100 Faxing: (510) 437-5836 Emailing: D11LNM@uscg.mil

ii. The harbormasters' offices of regional harbors
iii. Dive shops in coastal locations adjacent to the proposed offshore survey operations

One (1) working day in advance of actual operations, eTrac will inform the State's Geophysical Coordinator, (562) 590-5201, to confirm the receipt of required notices by their office and send a copy of the final pre-plot for the survey, including corresponding GPS coordinates.

In the event of any substantial additions, modifications, deviations, delays or cancelations, concerning the survey area or dates listed in the original notice, eTrac will make their best efforts to notify the parties listed under item 1 above prior to their occurrence.

eTrac will notify the State's Geophysical Coordinator by telephone within one (1) working day of completion of the survey operations.

Pre-Survey Notification Information

Purpose and Objectives

1. Reason for the survey: Pipeline Inpection
2. Types of data collected: Multibeam , Sub-bottom & ROV
3. Layout (including spatial information of survey track lines)
   a. GPS Coordinates/GIS Files: See Attachment
   b. Map/chart: See Attachment

** For Dredge Monitoring and Coastal Structure Surveys, Exhibit F and the questions above must be submitted at least twenty-four (24) hours prior to commencing survey operations, whenever feasible, otherwise as soon as possible.*

For all other surveys, the following documents must also be provided, along with the above questions and *Exhibits F & G*:

- ☐ Marine Wildlife Monitors Qualifications
- ☐ Potentially Affected Pinniped Haul-Out Sites
- ☐ Nearest Emergency Medical Facility

EXHIBIT G

California State Lands Commission Presurvey Notice Requirements for Permittees to Conduct Geophysical Survey Activities

All parts of the Presurvey Notice must be adequately filled out and submitted to the CSLC staff a minimum of twenty-one (21) calendar days prior to the proposed survey date to ensure adequate review and approval time for CSLC staff. Note that one or more of the items may require the Permittee to plan well in advance in order to obtain the necessary documentation prior to the Notice due date (e.g., permits from other State or Federal entities).

Please use the boxes below to verify that all the required documents are included in the Presurvey Notice. If "No" is checked for any item, please provide an explanation in the space provided. If additional space is needed, please attach separate pages.

Yes	No	
■	☐	Geophysical Survey Permit Exhibit F
■	☐	Survey Location (including a full-sized navigation chart and GPS coordinates for each proposed track line and turning point) Explanation: Coordinates & Overview Image in Document.Full coverage Multibeam will be performed.
☐	■	Permit(s) or Authorization from other Federal or State agencies (if applicable) Explanation: N/A
☐	■	21-Day Written Notice of Survey Operations to Statewide Geophysical Coordinator
■	☐	U.S. Coast Guard Local Notice to Mariners
■	☐	Harbormaster and Dive Shop Notifications Explanation: _____
■	☐	Marine Wildlife Contingency Plan Explanation: _____
■	☐	Oil Spill Contingency Plan Explanation: _____
☐	■	Verification of California Air Resources Board's Tier 2-Certified Engine Requirement Explanation: Engine is gasoline fueled outboards and exempt from Tier 2 certification
■	☐	Verification of Equipment Service and/or Maintenance (must verify sound output) Explanation: _____
☐	■	Permit(s) or Authorization from California Department of Fish and Wildlife for surveys in or affecting Marine Protected Area(s) (if applicable) Explanation: N/A

EXHIBIT F

PRESURVEY NOTIFICATION FORM

Applicant/Permittee's Mailing Address
eTrac, Inc.
637 Lindaro St. Ste 100
San Rafael, CA 94901

Jurisdiction:

Date: 07/29/2019
Federal _____ State _____
If State: Permit #PRC _____
Region: _____
Area: _____

GEOPHYSICAL SURVEY PERMIT

Check one: X New survey _____ Time extension of a previous survey

eTrac, Inc. will conduct a multibeam survey offshore California in the survey area outlined on the accompanying navigation chart segment. If you foresee potential interference with commercial fishing or other activities, please contact the person(s) listed below:

FEDERAL WATERS (outside 3 nautical miles)
1) Applicant's representative
2) Federal representative (e.g., Bureau of Ocean Energy Management [BOEM] or National Science Foundation [NSF])
NOTE: Any comments regarding potential conflicts in Federal waters must be received by the Applicant's Representative and lead Federal agency within ten (10) days of the receipt of this notice.

STATE WATERS (Inside 3 nautical miles)
1) Permittee's representative
2) CSLC representative
NOTE: Any comments regarding potential conflicts in State waters should be received as soon as possible by the Permittee's representative, no more than fifteen (15) days after the receipt of this notice.

1. Expected Date of Operation August 1, 2019 - September 26, 2019
2. Hours of Operation 08:00 - 19:00
3. Vessel Name Taku
4. Vessel Official Number CF 3078 UK
5. Vessel Radio Call Sign Taku
6. Vessel Captain's Name Shaun Adkins
7. Vessel will monitor Radio Channel(s) 16

8. Vessel Navigation System POS MV GNSS

9. Equipment to be used Edgetech 3200, 216 Chirp sub-bottom profiler

a. Frequency (Hz, kHz) 2-16 kHz
b. Source level (dB re 1 Pa at 1 meter (m) [root mean square (rms)])μ 212 dB
c. Number of beams, across track beamwidth, and along track beamwidth 1 beam variable width depending on frequency range (16-41 degrees)
d. Pulse rate and length pulse rate 1 per second; pulse length ranges from 5-30 ms
e. Rise time N/A
f. Estimated distances to the 190 dB, 180 dB, and 160 dB re 1 μPa (rms) isoplethsμ 190 dB - 35 m; 180 dB - 50 m; 160 dB -75 m
g. Deployment depth ~1m
h. Tow speed 4 kts
i. Approximate length of cable tow 1-3 m

10. Equipment to be used Multibeam Echosounder

a. Frequency (Hz, kHz) MBES :200-700 kHz
b. Source level (dB re 1 Pa at 1 meter (m) [root mean square (rms)])μ 219dB re 1uPa at 1m ;
c. Number of beams, across track beamwidth, and along track beamwidth 256 (25 ms)

d. Pulse rate and length 40Hz (25 ms) Length = 150ns
e. Rise time -0.05ms, 165 ns
f. Estimated distances to the 190 dB, 180 dB, and 160 dB re 1 μPa (rms) isoplethsμ 5.5m, 8.5m, 20m
g. Deployment depth 3m to 50m
h. Tow speed 4 kts
i. Approximate length of cable 100m

eTrac's Representative:

Erik Mueller
COO
637 Lindaro Street Suite #100
San Rafael, CA 94901
415-462-0421

BOEM Representative
Joan Barminski
Regional Supervisor
Office of Strategic Resources
770 Paseo Camarillo
Camarillo, CA 93010
(805) 389-7585

California State Lands Representative
Richard B. Greenwood
Statewide Geophysical Coordinator
200 Oceangate, 12th Floor
Long Beach, CA 90802-4331
(562) 590-5201

Other Federal Representative (if not BOEM):

_____
_____
_____
_____
_____
_____

Marine Wildlife Contingency Plan

This Marine Wildlife Contingency Plan (MWCP) is designed to act as a general guide for all geophysical survey operations conducted at eTrac, Inc. It is intended to provide guidance to all crew members and field personnel to minimize or avoid any interaction with marine wildlife that may occur during geophysical surveys. Project specific information required for the Pre-Survey Notification package is located in the appendices of this document.

Prior to the commencement of any project all crew members will review the MWCP and ensure they are familiar with all practices and procedures.

Safe Work Practices

2. Marine Wildlife Monitors (MWMs)
    a. Onboard MWMs will notify the vessel operator if a marine mammal or reptile is observed in the path of the transiting vessel. In response, the vessel operator will slow the vessel and/or change course to avoid contact with the animal, unless those actions would jeopardize the safety of the vessel or crew.
    b. Based on the type of survey, one or two MWMs are required:

Frequencies	MWMs Required
<200kHz	Two
>200kHz	One*
Passive	One* **

** This role can be fulfilled by a crew member. In order to do this, eTrac must petition to CSLC staff why a dedicated MWM (non-crew member) cannot be aboard the survey vessel, and how the crew member is qualified to observe for marine wildlife (included in resume).*

*** The operation of passive equipment does not fall under the program and therefore a permit is not required.*

    c. For surveys operating equipment at frequencies <200 kHz, MWMs are responsible for monitoring that all activities are maintaining at least the Safety Zone radius as outlined in the table below:

Equipment Type	Safety Zone (radius)
Single Beam Echosounder	50m
Multibeam Echosounder	500m
Side-Scan Sonar	600m
Subbottom Profiler	100m
Boomer	100m

If calculations/modeling shows that the equipment eTrac uses has a larger safety zone, then the larger safety zone will be observed. If a safety zone is required, the MWM(s) have the authority to stop all survey operations, including shutting off ***all equipment***, if a marine mammal or reptile is observed within the specified safety zone. The shutdown will will continue until the animal is sighted outside the safety zone or has not been observed for 15 minutes.

d. If an animal's actions are observed to be irregular, MWMs have the authority to recommend that the equipment be shut down until the animal moves further away from the sound source.
e. In addition to marine mammals and reptiles, MWMs will observe the area around the survey vessel for seabird activity and have the authority to stop or delay survey operations if unusual densities of diving birds/seabirds are identified.
f. MWMs have the authority to recommend cessation (or continuation) of operations during periods of limited visibility (e.g., fog, rain) based on the observed abundance of marine wildlife and their ability to view the safety zone (if a safety zone is required). Periodic reevaluation of weather conditions and reassessment of the continuation/cessation recommendation shall be completed by the MWMs.
g. Once the dates for a survey have been confirmed, a member of the crew will contact the NOAA Long Beach office staff and local whale watching operations to acquire information on the current composition and relative abundance of marine wildlife offshore and convey this information to the MWMs prior to commencement of survey activities. This will provide near real time information for those onboard the survey vessel about the spatial distribution of marine wildlife in the survey region.
h. Recordkeeping – At a minimum, MWMs are responsible for recording the following information, using the "Data Collection Guidelines for Marine Wildlife Monitors" provided by CSLC staff:
    i. Descriptions of any encounters with marine mammals, reptiles, and/or unusual concentrations of diving birds/seabirds and the outcome of those encounters
    ii. The number of times equipment shut-downs or vessel slow-downs were ordered due to animals being observed in the safety zone or due to poor visibility conditions
    iii. When surveying near haul-out sites, a summary of observations of pinniped behavior at haul-out sites, and any recommendations made related to pinniped avoidance
    iv. The number of collision events, if applicable, and the species and disposition of animal
    v. Any additional information relevant or necessary for compliance with the post-survey reporting requirement identified in the General Permit
i. Qualifications are to be submitted with the Pre-Survey Notification packet located in **Appendix A**.

3. Marine Mammal and Reptile Collision Response and Reporting

If a collision with an animal occurs, the vessel operator must document the following information:

a. Name of vessel, vessel owner/operator, and captain officer in charge of the vessel at time of collision
b. Vessel location (latitude, longitude) when the collision occurred
c. Date and time of collision
d. Speed and heading of the vessel at the time of collision
e. Observation conditions (e.g., wind speed and direction, swell height, visibility in miles or kilometers, and presence of rain or fog) at the time of collision
f. Species of marine wildlife contacted (if known)
g. Whether an observer was monitoring marine wildlife at the time of collision

After a collision, the vessel must stop, if safe to do so; however, the vessel is not obligated to stand by and may proceed after confirming that it will not further damage the animal by doing so. The vessel will then immediately communicate by radio or telephone all details to the vessel's base of operations, and will immediately report the incident. Consistent with Marine Mammal Protection Act requirements, the vessel's base of operations or, if an onboard telephone is available, the vessel captain will immediately call the National Oceanic and Atmospheric Administration (NOAA) Stranding Coordinator to report the collision and follow any subsequent instructions.

From the report, the Stranding Coordinator will coordinate subsequent action, including enlisting the aid of marine mammal rescue organizations, if appropriate. From the vessel's base of operations, a telephone call will be placed to the Stranding Coordinator, NOAA National Marine Fisheries Service, Southwest Region, Long Beach, to obtain instructions. Although NOAA has primary responsibility for marine mammals in both State and Federal waters, The California Department of Fish and Wildlife will also be advised that an incident has occurred in State waters affecting a protected species. Reports should be communicated to the agencies listed below:

Federal	**State**
Southwest Region National Marine Fisheries Service Long Beach, CA (562) 980-4017	Enforcement Dispatch Desk California Department of Fish and Wildlife Long Beach, CA (562) 598-1032 California State Lands Commission Division of Environmental Planning and Management Sacramento, CA (916) 574-1938 slc.ogpp@slc.ca.gov

4. Operating Procedures
    a. Soft Start - For all surveys using active geophysical equipment, a soft start technique is required at the beginning of survey activities each day or following a shut-down

to allow any marine mammal that may be in the immediate area to leave before the sound sources reach full energy. Operators are required to initiate each piece of equipment at the lowest practical sound level, increasing output in such a manner as to increase in steps not exceeding approximately 6 dBs per 5-minute period. Thirty minutes prior to ramp-up operations, the MWM(s) will begin to visually monitor the safety zone and surrounding area for marine wildlife; if a marine mammal or reptile is sighted within or about to enter the safety zone during ramp-up, a shut-down or power-down must be implemented as though the equipment was operating at full power. Initiation of ramp-up procedures from shut-down requires that the MWM(s) be able to visually observe the full safety zone.

a. Vessel Transiting - When whales or other cetaceans (i.e., dolphins) are observed, the operator of the survey vessel will observe the following guidelines to reduce the potential for collision or disruption during vessel transit and survey operations:
    i. Maintain a minimum distance of 100 yards
    ii. Do not cross directly in front of or across their path
    iii. Transit parallel to and at an equal or slower speed
    iv. Avoid positioning in such a way to separate female from their calf(ves)
    v. Do not use the vessel to herd or drive the animals
    vi. If an animal engages in evasive or defensive action, slow the vessel and move away from the area until the animal calms or moves out of the area
b. eTrac shall follow, to the maximum extent possible, the guidelines of Zykov (2013) as they pertain to the use of subbottom profilers and sidescan sonar, including:
    i. Using the highest frequency band possible for the subbottom profiler;
    ii. Using the shortest possible pulse length; and
    iii. Lowering the pulse rate (pings per second) as much as feasible.

eTrac will consider the potential applicability of these measures to other equipment types (e.g., boomer). And will conduct routine inspection and maintenance of acoustic-generating equipment to ensure that low energy geophysical equipment used during permitted survey activities remains in proper working order and within manufacturer's equipment specifications. Verification of the date and occurrence of such equipment inspection and maintenance will be provided in the required pre-survey notification to CSLC.

5. Marine Protected Areas & Sanctuaries and Pinniped Haul-out Sites
    a. If a survey is planned for locations that may cross or affect Marine Protected Areas (MPAs) or National Marine Sanctuaries, eTrac, Inc. will coordinate with the California State Land Commission (CSLC), California Department of Fish and Wildlife (CDFW), and any other appropriate permitting agency. If deemed necessary by CDFW, eTrac, Inc. will pursue a Scientific Collecting Permit (SCP), or other appropriate authorization, to secure approval to work within a MPA, and provide a copy of such authorization to the CSLC as part of the Pre-Survey Notification Requirements.

b. Consistent with National Marine Fisheries Service (NMFS) guidelines, no survey vessels will approach within 91m of a haul-out site.
c. Survey activity close to haul-out sites shall be conducted in an expedited manner to minimize the potential for disturbance of pinnipeds on land.

6. Equipment – See **Appendix B** for more details
    a. All electronics are marine rated
    b. All cables are wet-mateable connectors with safeguards in place to avoid shorts/electricity into the water column
    c. Cables are checked for nicks/kinks prior to mobilization and after demobilization
    d. Continuity tests are done when system issues are detected immediately and equipment is removed from wet environment immediately

Spill Contingency Plan

The best defense for spill containment is prevention. eTrac is dedicated to establishing safe and functional work practices that eliminate or greatly reduce the risk of a contaminant spill of any size. This plan is designed to offer guidance and the necessary contact information in the event of a spill. Prior to launching the vessel for any activity, the entire crew must review this Plan and ensure all members understand the procedures to be implemented in the event of a spill, the location of all containment equipment and that all contact information is current.

Safe Work Practices

1. Vessel fueling shall only occur at an approved docking facility. No cross vessel fueling shall be allowed.

Containment Equipment and Procedures

Each vessel is equipped with a containment/clean up kit rated for 5 gallons of oil-based material. In the event of a hull breech, the potential spill would beyond the scope of the crew's clean up capabilities and emergency services would be contacted immediately. In the event of an internal breech, the crew would contain the spill and disable all bilge pumps until they reached a site with adequate clean-up capabilities. Prior to launch, all containment equipment must be inspected and the storage location conveyed to all crew members.

Each kit includes (at least):

1. Gloves - 1 pair
2. Water-resistant sock booms - 2
3. Absorbent pads - 15
4. Disposal bags with fasteners - 2

In the event of a spill, the following steps must be taken:

1. Assess the immediate risks to personnel. The first priority is to ensure the safety of all crew members. If crew is uninjured and can safely contain and clean up the spill, proceed; otherwise attend to the injured and/or evacuate the area and contact emergency services (listed below).

ONLY if it is safe to do so;

2. Extinguish any sources of heat or flame and shut off all equipment/pumps.

3. Stop the spill at its source by covering holes, closing valves or clamping hoses.

4. Use sock booms and/or granular absorbent (if available) to prevent the spill from entering the water or to contain it in the water, then use absorbent pads to soak up the contaminant and place all soiled items in a disposal bag.

5. If the spill cannot be contained and cleaned up immediately, contact emergency services as soon as possible:

Parker Diving Service
Sausalito, CA
(415) 331-0329
(800) 464-3010

Ocean Blue Environmental Services, Inc
Long Beach, CA
(562) 624-4120
(800) 990-9930

Patriot Environmental Services
(800) 624-9136

MSRC
(800) 645-7745

NRC
(800) 337-7455

5. Immediately following the confirmation that all personnel are safe and the spill has been contained and/or cleaned up to the best of their ability, the captain or a designated crew member must notify the appropriate parties (the same day)

   a. The following information will be conveyed:
      i. Name and contact information of the caller
      ii. Location, date and time of the spill
      iii. Material(s) spilled and estimated quantities
      iv. Threatened wildlife, if any
      v. Source of the spill, if known
      vi. Containment and clean-up actions taken

   b. The following parties will be notified:

eTrac	
Project Manager:_____	_____
Erik Mueller	1-415-847-4786
State Agencies	
California Office of Emergency Services (OES)	1-800-852-7550
West Coast Oil Spill hot-line	1-800-OILS-911
U.S. Coast Guard National Response Center	1-800-424-8802
Wildlife Rescue / Response Organizations	
Oiled Wildlife Care Network	1-877-UCD-OWCN
Animal Advocates	1-323-651-1336
California Wildlife Center	1-818-222-2658

   c. After taking the necessary actions, the spill will be reported in writing to the Governor's Office of Emergency Services on their forms.

Emergency Action Plan

Project Specific Information

Project Name: **CRC Platform Emmy Bathymetric Survey**

Client: **Longitude 123**

Points of Contact:

Client Contacts

Name : Dan Holmes		Title
E-Mail : dholmes@longitude123.net	Office	Cell
Name		Title
E-Mail	Office	Cell
Name		Title
E-Mail	Office	Cell
Name		Title
E-Mail	Office	Cell

eTrac Contacts

Name: Nick George	Title: Senior Hydrographer	
E-Mail: nick@etracinc.com	Office/Cell: 415-847-0892	
Name: Erik Mueller	Title: COO	
E-Mail: erik@etracinc.com	Office/Cell:415-847-4186	
Name		Title
E-Mail	Office	Cell
Name		Title
E-Mail	Office	Cell

****** Primary Emergency Contact. In the event of an emergency, this person will relay information to relevant parties as needed.***

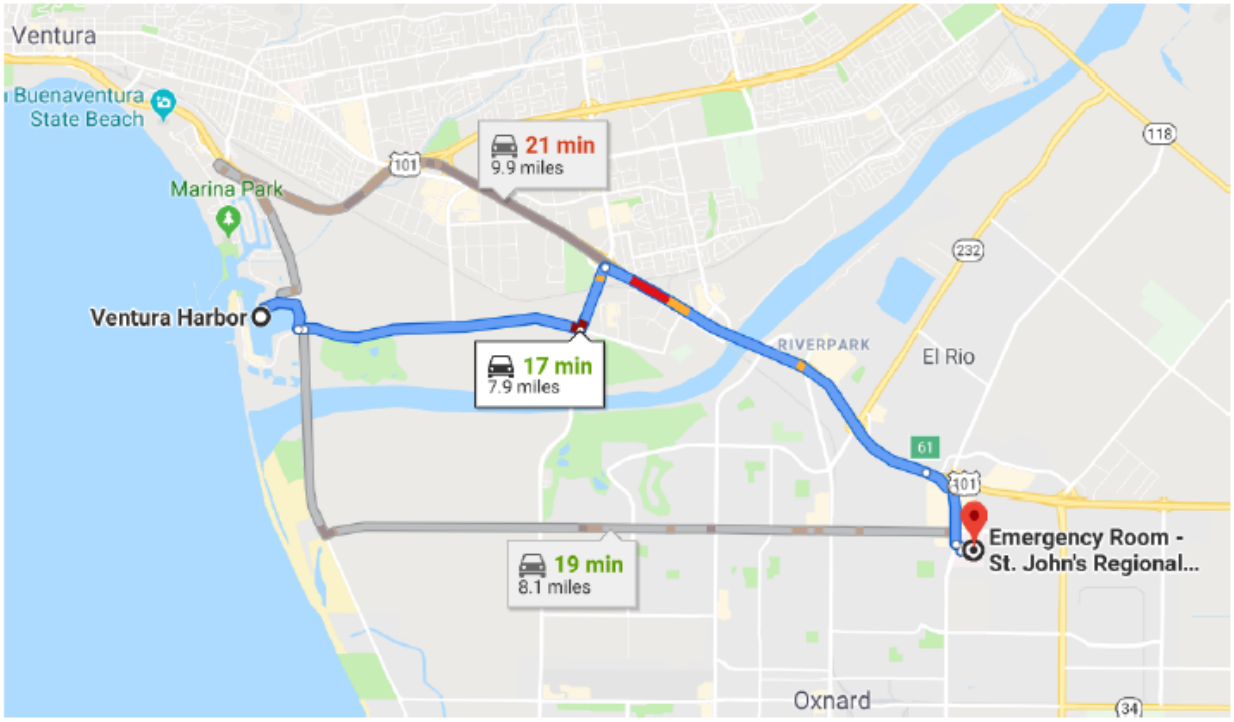
Emergency Contact Information

In the event of an emergency, once the immediate danger has passed, site personnel will notify the Project Manager and complete any incident documentation necessary.

Police / Fire / Ambulance	911
US Coast Guard 1. Clearly say: "MAYDAY MAYDAY MAYDAY" 2. Also give: - Vessel name and/or description - Position and/or location - Nature of emergency - Number of people on board 3. Wait for 10 seconds - **if NO response repeat call**.	VHF-FM Channel 16
U.S. Coast Guard Rescue Coordination Center – Oxnard, CA	805-985-9823
U.S. Coast Guard Rescue Coordination Center – Long Beach, CA	562-495-1480
U.S. Coast Guard Rescue Coordination Center – Honolulu, HI	808-535-3333
U.S. Coast Guard Rescue Coordination Center –Juneau, AK	907-463-2000
Vessel Assist – VHF Radio Hail 1. Clearly say: "VESSEL ASSIST, VESSEL ASSIST, This is [Boat's Name] hailing TowBoatUS" 2. Wait 2 minutes, if there is no response, try again.	VHF-FM Channel 16
BoatUS - National Dispatch	800-391-4869

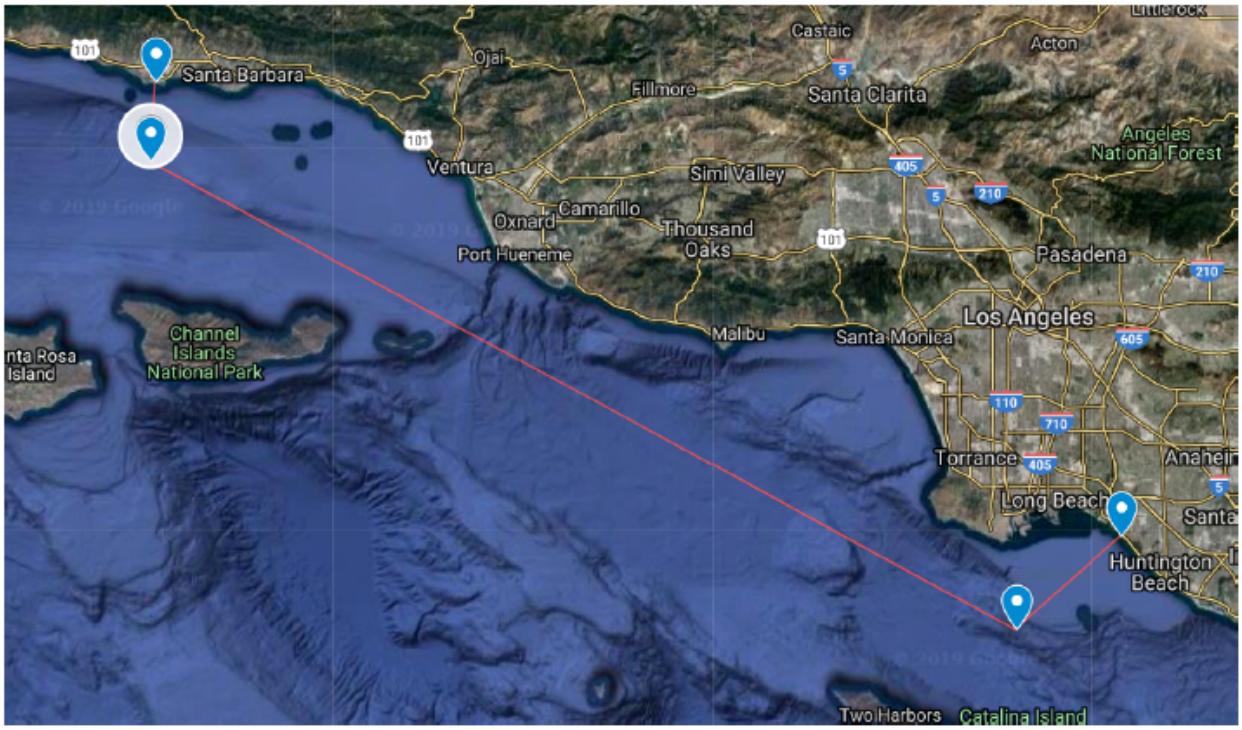
Nearest Emergency Medical Center:

St. John's Regional Medical Center
1600 N. Rose Ave
Oxnard, CA 93030



Project Site Coordinates:
North: 34.40884, -119.86001
North West: 34.28866, -119.87115
South: 33.57026, -118.26768
East: 33.71486, -118.07198

Project Site Overview Image:



Nicholas P.J. George

Email: nick@etracinc.com

EXPERIENCE

Hydrographic Surveyor, 08/13- present. eTrac, Inc. (Bay Area, CA)

Responsibilities:

- Plan, Implement and Oversee Small to Large-scale Project including marine habitat mapping
- Develop and implement new technology and data processing techniques for marine vegetation detection
- Manage and utilization of best practice approach to marine habitat mapping projects including implementation of the marine mammal observer trained observer program
- Organize and manage marine wildlife observers and logs for hydrographic survey projects

Hydrographic Surveyor, 08/12- 08/13. Independent Contractor. (Global)

Responsibilities:

- Online subsea positioning and data collection
- Hydrographic data analysis and production of deliverables including charts and reports.

Hydrographic Surveyor 04/10- 08/12. MMT UK. (Oxford, UK)

Responsibilities:

- Manage and QC processed field survey data
- Train and manage the field hydrographers
- Prepare government hydrographic reports

Research Assistant, 04/08- 04/10. James Cook University . (Townsville, Australia)

Responsibilities:

- GIS database management
- Processing of multibeam, backscatter and AUV marine habitat imagery data
- Analyzed subbottom seismic data
- Analyze marine biological data for coral habitat analysis from AUV data

EDUCATION

MappSc, GIS and Marine Science, James Cook University, Townsville, Australia (Oct 2009)

M.A., Geography, University of Edinburgh, Edinburgh, UK (June 2004)

PROFESSIONAL AFFILIATIONS/CERTIFICATIONS

- BOSIET basic offshore safety induction and emergency training with Norwegian extension

- First-Aid/CPR/AED Certified

- Member of GEOHAB backscatter working group for marine habitat mapping

- NOAA marine mammal trained observer

RELEVANT TRAINING/SKILLS

Hardware: MultiBeam Sonars, Cable and Pipe Trackers, Gradiometers, Magnetometers, ROVs, Motion Reference Systems, Altitude and depth sensors, Doppler Velocity Logs, GPS positioning systems (DGPS, RTK, PPK), USBL systems (HiPAP, Sonadyne) Tide Gauges, Sound Velocity Probes (Valeport, Digibar, AML), LandMark Marine LiDAR, Riegl LiDAR, SingleBeam, SideScan Sonars, Subbottom profilers

Software: MS Office, QINSy, CARIS HIPS&SIPS, Fledermaus, VisualEditPro, EIVA Naviedit & Navimodel, HYPACK , HYSWEEP, AutoCAD, ArcGIS

Courses: 56th UNB-OMG/UNH-CCOM Multibeam Sonar Training Course – Southampton, 2011

Maritime Skills: Australia small craft boat license, NOAA Hydrographic Surveys Division's Branch, Marine Wildlife Monitor, Trained Observer

Michael E. Mueller

eTrac, Inc,. 637 Lindaro Street, Suite 100, San Rafael CA 94901
Email: Mike@etracinc.com
Phone: 415-515-4186

EXPERIENCE

President 10/2003- present. eTrac Inc.

- Hydrographic Survey Services – Multibeam, Singlebeam services with Multiple vessel options
- Data Collection, Processing and Product generation – Hydrographic Survey
- Vessel Monitoring/QC Inspection Services
- Precision Dredge Positioning System installations -
- Daily Operations and Management of 20+ team of Engineers/Technicians

QC/Scow Monitoring, Engineer/Development 06/2000- 9/2003
Science Applications Intl. Corp (Newport RI, San Diego CA, Sausalito, CA)

- Design custom hardware and programming for Vessel Tracking Application
- Offshore vessel tracking for EPA/USACE compliance (East and West Coasts)
- On-Site Quality Control and Inspection Service
- Train field and office personnel in acquisition and processing methods.

Project Engineer 02/1998- 06/2000. Great Lakes Dredge & Dock Co. (Oak Brook, IL)

- Trained and managed the field engineering staff
- Hydrographic Survey system implementation and operation
- On-Site Quality Control and Production management
- Domestic and International Projects

EDUCATION

B.S., Ocean Engineering, University of Rhode Island,
Kingston, RI (1997). B.A. German, University of Rhode
Island, Kingston, RI (1997)

PROFESSIONAL AFFILIATIONS/CERTIFICATIONS

NOAA Certified Marine Wildlife Monitor
SAIC Project Management Training and Certification Level I & II
SSI Licensed Scuba Diver – Level 1
Multi-Year HYPACK US Reseller of the Year
Member: Marine Technology Society (1996 – 2000), American Society of Civil Engineers (1996-2000)
First-Aid/CPR/AED Certified 2016

RELEVANT TRAINING/SKILLS

-Hardware: MultiBeam Sonar, SingleBeam Sonar, Fathometers, Motion Reference Systems, GPS positioning systems (DGPS, RTK), Tidal Gauges, Sound Velocity Probes (Digibar, Seabird, Applied Microsystems)

-Software: MS Office, Hypack , Hysweep, Qinsy, AutoCAD, SolidWorks, ArcGIS, Caris, Triton Isis, VBA Scripting

-Maritime Skills: Small vessel operation, knowledge of maritime laws of travel, navigation

Danielle Halverson <danielle@etracinc.com>

Public Notice of Survey Operations

1 message

Danielle Halverson <danielle@etracinc.com> Tue, Jul 30, 2019 at 3:15 PM
To: D11LNM@uscg.mil, harbormaster@venturaharbor.com, info@visitmarinadelrey.com, sriedman@santabarbaraca.gov, lvira.hallinan@longbeach.gov

To whom it may concern:

Attached is the Pre-Survey Notification Packet for a bathymetric survey scheduled to be conducted by eTrac, Inc. during the period of 8/1/19 - 9/26/19. This is for informational purposes only - NO ACTION IS REQUIRED.

The survey personnel and equipment spread will consist of a commercial survey boat approximately 30 feet in length, a marine surveyor/technicians/environmental monitor, a vessel mounted 3D multi-beam sonar system and a commercial grade differential GPS with sub-meter accuracy or better. An ROV will also be utilized for a portion of this assignment between the dates of August 21 and September 21, 2019, as well as low a frequency sub-bottom sonar between the dates of August 11 and August 21, 2019.

If you have any questions pertaining to this project please feel free to contact our offices.

Thank you,

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SLC Pre-Survey Letter and Packet_Santa Barbara to LongBeach_7.29.19.pdf
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